



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

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February 26, 2016

Mr. Tom Mahler, On-Scene Coordinator  
Superfund Division  
United States Environmental Protection Agency, Region 7  
11201 Renner Boulevard  
Lenexa, Kansas 66219

RE: Comments on the proposed Stormwater Monitoring Plan for West Lake Landfill Time Critical Removal Action for the Non-Combustible Cover

Dear Mr. Mahler:

The Missouri Department of Natural Resource's Federal Facilities Section recently received an email from Paul Rosasco of Engineering Management Support, Inc. regarding a proposed work plan to meet the substantive requirements of the State's stormwater Applicable or Relevant Appropriate Requirements (ARARs) relating to a portion of the potential ARARs submitted by the Department on December 15, 2015. Electronic documents received include:

- Letter to Tom Mahler; Stormwater Monitoring During Non-Combustible Cover Construction – West Lake Landfill Operable Unit 1, Bridgeton, Missouri; Dated February 23, 2016; Received February 23, 2016
- (Attachment) Table 1; Proposed NPDES Analytical Parameters and Comparison Limits; Received February 23, 2016
- (Attachment) Figure 1; Potential Drainage Pathways; Received February 23, 2016
- (Revised Attachment) Figure 1; Potential Drainage Pathways; Received February 24, 2016

Subsequent to receipt of these documents was an EPA request to review and respond to the proposed work plan.

We have coordinated with the department's Water Protection Program to review the proposed work plan, and have attached our comments to this letter. Please note that the time needed to finalize the work plan should not in any way relieve the Respondents of their obligation to fulfill the substantive requirement of the state ARAR during the course of the current TCRA action. Please also note that West Lake Landfill site is subject to this ARAR until such time that the regulators receive evidence that indicates closure of the landfill has been completed and that the

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site does not show evidence of leachate, or leachate constituents being discharged from the landfill property.

Thank you for giving us the opportunity to review and comment on these documents. If you have any questions pertaining to these comments please contact me by phone at (573) 751-8628, or by written correspondence at P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

HAZARDOUS WASTE PROGRAM

A handwritten signature in black ink, appearing to read "Ryan Seabaugh", with a stylized flourish at the end.

Ryan Seabaugh, P.E.

Federal Facilities Section

RS:rl

Cc: Bradley Vann, EPA Region 7  
Chris Wieberg, Water Protection Program

Enclosure: Comments to the proposed stormwater monitoring plan

# MISSOURI DEPARTMENT OF NATURAL RESOURCES

## Comments on the West Lake Landfill Proposed Stormwater Monitoring Plan February 25, 2016

### Sampling and Testing Requirements

- 1.) Monitoring Frequency: The monitoring frequency should be conducted monthly, given the unknown variability of the pollutants that could potentially be discharged from this site.
- 2.) Sample Timing: All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, see reporting requirement comments.
- 3.) Testing Precision and Accuracy: All sample analyses shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
- 4.) Test Procedures: The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations. A method is "sufficiently sensitive" when:
  - a. The method minimum level is at or below the level of the applicable water quality criterion for the pollutant; or
  - b. The method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge; or
  - c. The method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015.

These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if future limitations need to be established. The Respondent is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.



## Reporting Requirements

### 5.) Non-Detects:

- a. The Respondent shall not report a sample result as “Non-Detect” without also reporting the detection limit of the test. Reporting as “Non-Detect” without also including the detection limit will be considered failure to report, which is an ARAR violation.
- b. The Respondent shall report the “Non-Detect” result using the less than sign and the minimum detection limit (e.g. <10).
- c. The Respondents shall use one-half ( $\frac{1}{2}$ ) of the detection limit for the non-detect result when calculating and reporting monthly averages.

### 6.) Precipitation Reporting: The total amount of precipitation should be noted from the event from which the samples were collected.

### 7.) No Discharges: If a discharge does not occur within the reporting period, report as no discharge.

## Constituents and Limits

### 8.) Contaminant Limits: Monitoring only for a pollutant does not mean a discharge of the pollutant will not cause an exceedance of a water quality standard in stream, which is what the ARAR seeks to prohibit. In the absence of any data analysis, a limit should be set at the acute or most protective water quality criteria for each parameter to ensure standards are not violated. Table 1 below provides available criteria for Maximum Daily Limits for some of the constituents listed in the original plan. These limits should be applied instead of monitoring only criteria

Daily maximum limitations should be placed on the parameters listed below at the most protective acute aquatic life water quality standard, Human Health Fish Consumption standard, or Livestock Wildlife Watering standard whichever is more protective. Parameters that are hardness dependent are set using a default stream hardness of 162 mg/L.

**Table 1: Default Maximum Daily Limit Criteria**

Parameter	Unit	Max Daily Limit	Monthly Average Limit
Aluminum Total Recoverable	ug/L	750	Monitoring only
Antimony, Total Recoverable	ug/L	4300	Monitoring only
Arsenic, Total Recoverable	ug/L	20	Monitoring only
Beryllium, Total Recoverable	ug/L	5	Monitoring only
Cadmium, Total Recoverable	ug/L	7.1	Monitoring only
Chromium (III), Total Recoverable	ug/L	794	Monitoring only

**Table 1 (Continued): Default Maximum Daily Limit Criteria**

Parameter	Unit	Max Daily Limit	Monthly Average Limit
Chromium (VI), Dissolved	ug/L	15	Monitoring only
Cobalt, Total Recoverable	ug/L	1000	Monitoring only
Copper, Total Recoverable	ug/L	20	Monitoring only
Lead, Total Recoverable	ug/L	100	Monitoring only
Mercury, Total Recoverable	ug/L	2.4	Monitoring only
Nickel, Total Recoverable	ug/L	660	Monitoring only
Selenium, Total Recoverable	ug/L	5	Monitoring only
Silver, Total Recoverable	ug/L	6.5	Monitoring only
Thallium, Total Recoverable	ug/L	6.3	Monitoring only
Zinc, Total Recoverable	ug/L	165	Monitoring only
Benzene	ug/L	71	Monitoring only
Ethylbenzene	ug/L	320	Monitoring only

9.) Radiological Contaminants – MCL: Stormwater discharge of radiological contaminants that are regulated to drinking water Maximum Contaminant Levels (MCLs), but not provided in the proposed monitoring list include Gross Alpha and Beta. Please include monitoring for Gross Alpha and Beta, and comparison to the MCLs for those parameters.

10.) Radiological Contaminants – Monitor Only: In addition to the proposed constituent list, we support monitoring additional contaminants of concern provided to the Respondents from EPA via email on August 10, 2015. We emphasize the inclusion of isotopic Thorium and Lead-210 in the list of monitored contaminants.

11.) General Limits: To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.

The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- a. Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;



- b. Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- c. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- d. Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- e. There shall be no significant human health hazard from incidental contact with the water;
- f. There shall be no acute toxicity to livestock or wildlife watering;
- g. Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- h. Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

### **Sampling Locations**

- 12.) Monitoring Points: Respondents shall evaluate the North and Northwest property boundaries of Area 2 during rainfall events to determine any discharges from those areas. If discharges do occur, samples shall be collected and analysis conducted in accordance with the parameter list for the other outfalls.

### **Applicability**

- 13.) Applicability: The site is subject to stormwater ARARs regardless of this Time-Critical Removal Action. It is Department policy to permit landfills under a National Pollution Discharge Elimination System permit until such time as official closure of the landfill has been completed, and the site does not show evidence of leachate, or leachate constituents being discharged from the landfill property.

### **Other**

- 14.) Stormwater Pollution Prevention Plan (SWPPP) development: Facilities are required to develop and implement best management practices (BMPs) that are detailed in a SWPPP. Components of this requirement may already be available in existing project documents submitted by the Respondents.

Facility SIC codes found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) shall implement a SWPPP and must be prepared and implemented upon operation. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The facility shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document: Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (EPA 833-B-09-002) published by the EPA in February 2009. The SWPPP must include the following:

- a. A listing of specific BMPs and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event.
- b. The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness.
  - i. Operational deficiencies must be corrected within seven (7) calendar days.
  - ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
  - iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The Respondent will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
  - iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
  - v. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department personnel upon request.
- c. A provision for designating an individual to be responsible for environmental matters.
- d. A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.